

U.S.C. § 103(a) as being unpatentable over Burakoff in view of Reese and further in view of Zucknovich. Claims 41 and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Official Notice. Applicants respectfully submit that all of the presently pending claims are allowable in view of the following remarks. Reconsideration of the present application is requested.

Applicants also note that although the Office Action states that “Applicants’ arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection,” the Examiner’s prior art rejections rely on the same prior art as in the previous Office Action, are very similar to the rejections in the previous Office Action, and in some cases (see for example the rejections of claims 1 and 39) are virtually identical to the rejections in the previous Office Action. Applicants respectfully submit that under MPEP § 707.07(f) the Examiner should provide an explanation as to the reasons that Applicants’ previous arguments have not been found persuasive. (“Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant’s argument and answer the substance of it.”) Nevertheless, Applicants will attempt to clarify their arguments as to why the present claims are allowable over the prior art cited by the Examiner.

**II. REJECTION UNDER 35 U.S.C. § 101 WILL BE OVERCOME BY A TERMINAL DISCLAIMER**

Applicants will overcome the double patenting rejection of claims 1-49 based on U.S. Application 09/766,293 by filing a terminal disclaimer when the ‘293 application issues as a U.S. Patent. Applicants do not concede that the Examiner’s statements regarding what is disclosed by Reese are correct.

**III. REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH SHOULD BE WITHDRAWN**

Applicants respectfully disagree with the Examiner’s rejection of claims 1, 12, 25, 37, 39, 41 and 42 under 35 U.S.C. § 112, second paragraph based on the language “a master symbol formatted according to a predetermined structure” which appears in each of these claims. This language is supported and described in the specification at, for example, page 7, lines 20-27 where it states that according to one embodiment of the

invention “all master symbols . . . utilize a pre-defined structure” and that “all master symbols . . . will be structured according to the same pre-determined symbol template”. Although the Examiner has referenced this portion of the specification as describing the structure of the “master symbol database,” Applicants respectfully note that this section describes the structure of the master symbols.

Thus, Applicants assert that the language “a master symbol formatted according to a predetermined structure” is supported by the specification and is not indefinite under 35 U.S.C. § 112.

#### **IV. REJECTIONS UNDER 35 U.S.C. § 103(a) SHOULD BE WITHDRAWN**

In order to reject a claim for obviousness under 35 U.S.C. § 103, the prior art must teach or suggest each and every element of the claim and must also suggest combining the elements in the manner contemplated in the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir.), cert. denied 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990).

Burakoff describes a computer-assisted method for manipulating securities information. According to Burakoff, one aspect of the invention is a computer-assisted method for manipulating securities information. The method includes the steps of acquiring securities information from one or more database sources, identifying one or more portions of the acquired securities information as relating to a particular security, and creating a computer-readable file having the identified portions. In the Burakoff system, both companies and securities are expected to be referenced using unique identifiers, for example, a company name to identify a company or a CUSIP number or stock ticker symbol to identify a security. A CUSIP number is a unique number assigned by Standard & Poor’s CUSIP Service Bureau, to identify a security. A stock ticker symbol is a symbol assigned by a stock exchange (and unique to that stock exchange) to identify a security.

The Burakoff system then describes using these identifiers to match information to a particular company or security. For example, in one embodiment, a securities submission source is first queried to extract all the files associated with a particular company using an identifier. Burakoff also describes a method for retrieving compliance information by receiving an identifier unique to a particular security (e.g., a CUSIP number or stock ticker

symbol), and transmitting compliance information for the security specified by the identifier. Burakoff also describes a cataloging subsystem which presents a system operator with securities submissions. The system operator inspects each submission and catalogs it according to the information it contains by identifying the particular securities about which the submission contains compliance information. An internal identification number, CUSIP identifiers and stock ticker symbols are used to identify particular securities. The system described in Burakoff always relies on a known, unique identifier when it is relating a query or information item to a particular security or company.

Reese relates to a computer apparatus for automatically generating displays or reports containing investment security or element recommendations. According to Reese, the user selects a security by use of a security selection means. The computer apparatus then processes the request utilizing the programmed algorithms to construct the first subset of information. This first subset consists of the recommendations for the security selected for the predetermined date range. The computer apparatus utilizes a Microsoft Access select query to construct the first subset. Through the utilization of the criteria based upon the selection of the user the selected query is able to retrieve just the recommendations for the security chosen for the predetermined date range. For example, if a user enters the ticker symbol WDC, the computer apparatus will retrieve from the Recommendation Data Set the recommendations captured for Western Digital (WDC). The first subset will consist of the unique ID number of the recommendations found within the Access database. Similar to Burakoff, Reese relies on a known, unique identifier to perform queries relating to the security associated with that identifier.

Zucknovich describes a system for controlling the distribution of electronic information including information about companies which may be of interest to investors. Zucknovich describes providing documents to users in response to a query submitted by the user filling in fields on an HTML form. The submitted fields may include a stock symbol, the publisher of the document, the publication date of the document and keywords. The results of the query are then output to the user.

The present application relates to a method and system for the reference, archival and retrieval of symbolically linked information in an environment of idiosyncratic symbol usage. As described in the specification, according to one embodiment of the present invention, a master

symbol database stores a plurality of master symbols. Each master symbol in the master symbol database is linked to a parent identifier that identifies a unique object. Master symbols stored in the master symbol database are stored in a normalized format to provide a consistent method of referencing and searching the master symbol database.

In contrast to Burakoff, Reese and Zucknovich, in the example system described in the present application, potentially ambiguous symbols are individually processed to generate unique master symbols that correspond to a unique parent identifier. For example, as described in the present application, the stock ticker symbol "T" refers to an AT&T security in the United States, but in Canada "T" refers to a security of the Telos company. The AT&T "T" symbol and the Telos "T" symbol are processed to generate unique master symbols which correspond to unique parent identifiers for AT&T and Telos, respectfully. Each master symbol may consist of a number of segments, each segment of which is a field which describes a characteristic of the security the master symbol is for. For example, one of the segments may be for the country that the security is from and may be filled by the string "US" for United States or "GB" for Great Britain. These master symbols and parent identifiers are stored in a master symbol database.

When information (e.g., a financial document) is received about a security, an input symbol received with or as part of the information is used to determine which security the information relates to. In order to accomplish this determination accurately, the input symbol is normalized by, for example, putting it into the segmented form used for the master symbols, even though the proper value for all of the segments may not be resolved from the input symbol alone. The master symbol database is then searched for a single master symbol which matches the normalized symbol. If a single match is made then the information can be linked with the parent identifier of the matched master symbol. If a single match cannot be made, the system can attempt to fill in information for the unresolved segments of the normalized symbol. For example, information about the contributor of the financial document (e.g., historical patterns from the contributor's previous submissions) may be used to fill in the unresolved fields and the search in the master symbol database may be run again.

When a query for information (e.g., financial documents) regarding a particular symbol (e.g., a stock ticker symbol) is received, a similar process may be followed to match the symbol to a parent identifier by normalizing the symbol and searching for a match in the

master symbol database.

### **Claims 1-11**

Claims 1-4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Burakoff. Claims 5-11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Burakoff in view of Zucknovich. Applicants respectfully submit that these rejections should be withdrawn.

Claim 1 recites:

A method for storing and referencing symbolically linked information comprising the steps of:  
    *processing a symbol to generate a master symbol formatted according to a predetermined structure;*  
    *determining a unique parent identifier corresponding to the master symbol;*  
    storing the parent identifier and the master symbol in a master symbol database wherein the master symbol is linked to the parent identifier;  
    storing at least one information element wherein the at least one information element is linked to the parent identifier.

As explained above, Burakoff uses known, unique symbols to perform its operations. Burakoff does not generate any symbols, but rather uses preexisting symbols. There is no need for the system of Burakoff to “process[] a symbol to generate a master symbol formatted according to a predetermined structure” and “determin[e] a unique parent identifier corresponding to the master symbol” because the symbol in Burakoff is already considered to be unique.

In contrast, the present invention, as recited in claim 1, processes a symbol to generate a master symbol which has a predetermined structure and then determines a unique identifier which corresponds to that master symbol. Thus, the present invention, as recited in claim 1, does not require that the initial symbol is unique

Zucknovich also does not describe “processing a symbol to generate a master symbol formatted according to a predetermined structure,” or “determining a unique parent identifier corresponding to the master symbol” nor does the Examiner contend that it does. Furthermore, Applicants respectfully disagree with the Examiner that Zucknovich teaches a master symbol structured according to a symbol template and including symbol segments or symbol fields. The sections of Zucknovich cited by the Examiner describe using HTML template forms to complete searches of a database. The symbols discussed are used only as parameters in the form—there is no

disclosure of the symbols being structured according to a symbol template.

Thus, the Examiner's rejection of claim 1 should be withdrawn for at least the reason that neither Burakoff or Zucknovich describes or suggests "processing a symbol to generate a master symbol formatted according to a predetermined structure." Claims 2-11 depend from claim 1. Thus, claims 2-11 are allowable for at least the reasons that claim 1 is allowable. The Examiner's rejections of claims 1-11 should be withdrawn.

#### **Claims 12-24**

Claims 12-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Reese. Claims 16-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Reese and further in view of Zucknovich. Applicants respectfully submit that these rejections should be withdrawn.

Claim 12 recites:

A method for the archival of symbolically linked information comprising the steps of:  
    receiving an information element and at least an input symbol;  
    *normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure;*  
    *searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier;* and  
    storing at least the parent identifier and the information element so that the parent identifier is linked to the information element.

As explained above, the input symbols used by Burakoff to perform its operations are known, unique symbols. Burakoff does not describe "normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure" or "searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier." Nor is there any reason for Burakoff to carry out those steps because in Burakoff, the symbol is already considered to be unique so no normalization of the symbol or searching for a matching master symbol is required.

Similarly, the input symbols used by Reese to perform its operations are known, unique symbols and Reese does not perform any normalization to the input symbols. Thus, Reese does not describe "normalizing the input symbol to generate a normalized symbol

formatted according to a predetermined structure” or “searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier” because under Reese the symbol is already considered to be unique so no normalization of the symbol or searching for a matching master symbol is required. Applicants respectfully submit that the portion of the Reese specification cited by the Examiner (14:22-34) as describing “normalizing the input symbol” merely describes searching a data set based on the ticker symbol of a security and retrieving a list of unique ID numbers which correspond to “recommendations” of the security (e.g., magazines, articles, columns, etc.) (see also 13:36-63).

Zucknovich also does not describe “normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure” or “searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier,” nor does the Examiner contend that it does.

Thus, the Examiner’s rejection of claim 12 should be withdrawn for at least the reason that none of Burakoff, Reese or Zucknovich describes or suggests “normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure” or “searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier.” Claims 13-24 depend from claim 12. Thus, claims 13-24 are allowable for at least the reasons that claim 12 is allowable. The Examiner’s rejections of claims 12-24 should be withdrawn.

#### **Claims 25-36**

Claims 25-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Reese. Claims 30-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Reese and further in view of Zucknovich. Applicants respectfully submit that these rejections should be withdrawn.

Claim 25 recites:

A method for the retrieval of symbolically linked information,  
comprising the steps of:  
    receiving an input symbol;  
    *normalizing the input symbol to generate a normalized  
symbol formatted according to a predetermined structure;*  
    *searching a master symbol database using the  
normalized symbol to find a matching master symbol and a  
parent identifier linked to the master symbol;*

searching an information element database to find an information element linked with the parent identifier; and retrieving the information element linked to the parent identifier.

As explained above in regard to claim 12, Burakoff and Reese do not describe or suggest “normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure” or “searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol.” Zucknovich also does not describe “normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure” or “searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol,” nor does the Examiner contend that it does.

Thus, the Examiner’s rejection of claim 25 should be withdrawn for at least the reason that none of Burakoff, Reese or Zucknovich describes or suggests “normalizing the input symbol to generate a normalized symbol formatted according to a predetermined structure” or “searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol.” Claims 26-36 depend from claim 25. Thus, claims 26-36 are allowable for at least the reasons that claim 25 is allowable. For at least the reasons discussed above, the Examiner’s rejection of claims 25-36 should be withdrawn.

#### **Claims 37-40**

Claims 37-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Reese. Applicants respectfully submit that these rejections should be withdrawn.

Claim 37 recites:

A document repository system allowing electronic archival of documents using an input symbol comprising:  
a storage device;  
a network interface;  
a processor coupled to the storage device, said processor adapted to:  
store a database of master symbols, wherein each master symbol is linked to a parent identifier and a document database;  
receive an input symbol and a document via the network interface,



*normalize the input symbol to obtain a normalized input symbol formatted according to a predetermined structure,*  
*search the master symbol database using the normalized input symbol to find a matching master symbol and a linked parent identifier,*  
store the document in the document database so that the document is linked to the parent identifier.

Similar to the explanation above in regard to claim 12, Burakoff and Reese do not describe or suggest a “processor adapted to” “normalize the input symbol to obtain a normalized input symbol formatted according to a predetermined structure” or “search the master symbol database using the normalized input symbol to find a matching master symbol and a linked parent identifier.” Thus, the Examiner’s rejection of claim 37 should be withdrawn. Claim 38 depends from claim 37, thus claim 38 is allowable for at least the reasons that claim 37 is allowable. The Examiner’s rejection of claim 38 should be withdrawn.

Claim 39 of the present application recites:

A document repository system allowing electronic retrieval of documents using an input symbol, comprising:  
a storage device storing a master symbol database and a document database, the master symbol database storing master symbols, wherein each master symbol is linked to a parent identifier, and the document database storing documents linked to a parent identifier;  
a network interface;  
a processor, which:  
receives an input symbol via the network interface,  
*normalizes the input symbol to obtain a normalized input symbol formatted according to a predetermined structure,*  
*searches the symbol database using the normalized input symbol to find a matching master symbol and a linked parent identifier, and*  
retrieves documents from the document database that are linked to the parent identifier.

Similar to the explanation above in regard to claim 12, Burakoff and Reese do not describe or suggest “a processor which” “normalizes the input symbol to obtain a normalized input symbol formatted according to a predetermined structure” or “searches the symbol

database using the normalized input symbol to find a matching master symbol and a linked parent identifier.” Thus, the Examiner’s rejection of claim 39 should be withdrawn. Claim 40 depends from claim 39, thus claim 40 is allowable for at least the reasons that claim 39 is allowable. The Examiner’s rejection of claim 40 should be withdrawn.

#### **Claims 41 and 42**

Claims 41 and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Official Notice. Applicants respectfully submit that these rejections should be withdrawn.

Claim 41 of the present application recites:

A method for storing and referencing symbolically linked information in an environment wherein a plurality of different symbols are conventionally utilized to refer to a single entity, comprising the steps of:

receiving a plurality of input symbols, each pertaining to a same single entity;

*for each of the plurality of input symbols, generating a normalized master symbol formatted according to a predetermined structure;*

determining a unique parent symbol corresponding to the master symbols;

storing the parent symbol and the plurality of master symbols in a master symbol database wherein each of the plurality of normalized master symbols is linked to the parent symbol.

Claim 42 of the present application recites:

A document repository system allowing electronic retrieval of documents related to a plurality of entities, each of the entities conventionally referred to utilizing a plurality of different symbols comprising:

a processor, wherein the processor is adapted to:

receive a plurality of input symbols, each pertaining to a same single entity;

*for each of the plurality of input symbols, generate a normalized master symbol formatted according to a predetermined structure;*

determine a unique parent symbol corresponding to the master symbols;

store the parent symbol and the plurality of master symbols in a master symbol database wherein each of the plurality of normalized master symbols is linked to the parent symbol.

Similar to the explanation above in regard to claim 12, Burakoff does not describe or suggest generating “a normalized master symbol formatted according to a predetermined structure.” Applicants respectfully submit that the portion of the Burakoff specification cited by the Examiner (7:61-67) as describing “generating a normalized master symbol” instead merely describes cataloging a “submission” using CUSIP or stock ticker symbols—it does not describe the generation of a normalized master symbol.

Thus, the Examiner’s rejection of claims 41 and 42 should be withdrawn.

#### **Claims 43-49**

Claims 43-49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burakoff in view of Reese. Applicants respectfully submit that these rejections should be withdrawn.

Claim 43 recites:

A method for the archival of symbolically linked information, comprising:  
    receiving an information element and at least an input symbol;  
    *normalizing the input symbol, based on a historical pattern of a contributor of the information element, to generate a normalized symbol;*  
    searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier; and  
    storing at least the parent identifier and the information element so that the parent identifier is linked to the information element.

Claim 45 recites:

A method for the retrieval of symbolically linked information, comprising:  
    receiving an input symbol;  
    *normalizing the input symbol, based on a historical pattern of a submitter of the input symbol, to generate a normalized symbol;*  
    searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol;  
    searching an information element database to find an information element linked with the parent identifier; and  
    retrieving the information element linked to the parent

identifier.

Applicants respectfully disagree with the Examiner's assertion that Reese describes "normalizing the input symbol, based on a historical pattern of a contributor of the information element, to generate a normalized symbol" or "normalizing the input symbol, based on a historical pattern of a submitter of the input symbol, to generate a normalized symbol" as recited in claims 43 and 45, respectively. Applicants respectfully note that the portion of Reese which the Examiner cites (16:20-34 and 17:45-50) merely describes a piece of information supplied to a user about the security which they are researching, namely whether that security is recommended by recommenders who have historically performed well in making recommendations. Reese does not describe or suggest using this historical information for "normalizing the input symbol," it merely provides the historical information to the user. Thus, since Reese does not disclose this element of claims 43 and 45, and the Examiner has admitted that it is not disclosed by Burakoff, the Examiner's rejections of claims 43 and 45 should be withdrawn.

Claim 44 recites:

A method for the archival of symbolically linked information, comprising:  
    receiving an information element and at least an input symbol;  
    *normalizing the input symbol, based on a preference of a contributor of the information element, to generate a normalized symbol;*  
    searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier; and  
    storing at least the parent identifier and the information element so that the parent identifier is linked to the information element.

Claim 48 recites:

A method for the retrieval of symbolically linked information, comprising:  
    receiving an input symbol;  
    *normalizing the input symbol, based on a preference of a submitter of the input symbol, to generate a normalized symbol;*  
    searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol;

searching an information element database to find an information element linked with the parent identifier; and  
retrieving the information element linked to the parent identifier.

Applicants respectfully disagree with the Examiner's assertion that Reese describes "normalizing the input symbol, based on a preference of a contributor of the information element, to generate a normalized symbol" or "normalizing the input symbol, based on a preference of a submitter of the input symbol, to generate a normalized symbol" as recited in claims 44 and 48, respectively. Applicants respectfully submit that the portion of the Reese specification cited by the Examiner (14:22-34) as describing "normalizing the input symbol" merely describes searching a data set based on the ticker symbol of a security and retrieving a list of unique ID numbers which correspond to "recommendations" of the security (e.g., magazines, articles, columns, etc.) (see also 13:36-63).

Thus, since Reese does not disclose or suggest this element of claims 44 and 48, and the Examiner has admitted that it is not disclosed by Burakoff, the Examiner's rejections of claims 44 and 48 should be withdrawn.

Claim 46 recites:

A method for the archival of symbolically linked information, comprising:  
receiving an information element and at least an input symbol;  
*normalizing the input symbol, based on an identification of a contributor of the information element, to generate a normalized symbol;*  
searching a master symbol database using the normalized symbol to find a matching master symbol and linked parent identifier; and  
storing at least the parent identifier and the information element so that the parent identifier is linked to the information element.

Claim 47 recites:

A method for the retrieval of symbolically linked information, comprising:  
receiving an input symbol;  
*normalizing the input symbol, based on an identification of a submitter of the input symbol, to generate a normalized symbol;*  
searching a master symbol database using the

normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol;  
searching an information element database to find an information element linked with the parent identifier; and  
retrieving the information element linked to the parent identifier.

Applicants respectfully disagree with the Examiner's assertion that Reese describes "normalizing the input symbol, based on an identification of a contributor of the information element, to generate a normalized symbol" or "normalizing the input symbol, based on an identification of a submitter of the input symbol, to generate a normalized symbol" as recited in claims 46 and 47, respectively. Applicants respectfully submit that the portion of the Reese specification cited by the Examiner (14:22-34) as describing "normalizing the input symbol" merely describes searching a data set based on the ticker symbol of a security and retrieving a list of unique ID numbers which correspond to "recommendations" of the security (e.g., magazines, articles, columns, etc.) (see also 13:36-63).

Thus, since Reese does not disclose or suggest this element of claims 46 and 47, and the Examiner has admitted that it is not disclosed by Burakoff, the Examiner's rejections of claims 46 and 47 should be withdrawn.

Claim 49 recites:

A method for the retrieval of symbolically linked information, comprising:  
receiving an input symbol;  
*normalizing the input symbol, based on a context of the input symbol, to generate a normalized symbol;*  
searching a master symbol database using the normalized symbol to find a matching master symbol and a parent identifier linked to the master symbol;  
searching an information element database to find an information element linked with the parent identifier; and  
retrieving the information element linked to the parent identifier.

Applicants respectfully disagree with the Examiner's assertion that Reese describes "normalizing the input symbol, based on a context of the input symbol, to generate a normalized symbol" as recited in claim 49. Applicants respectfully submit that the portion of the Reese specification cited by the Examiner (14:22-34) as describing "normalizing the input symbol" merely describes searching a data set based on the ticker symbol of a security and

retrieving a list of unique ID numbers which correspond to "recommendations" of the security (e.g., magazines, articles, columns, etc.) (see also 13:36-63).

Thus, since Reese does not disclose or suggest this element of claim 49, and the Examiner has admitted that it is not disclosed by Burakoff, the Examiner's rejection of claim 49 should be withdrawn.

**V. CONCLUSION**

It is respectfully submitted that the application is in condition for allowance, and Applicants request reconsideration and withdrawal of all grounds of rejection. A Notice of Allowance is respectfully requested.

The Examiner is invited to contact the undersigned at (212) 425-7200 to discuss the application.

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